This section of the EIR addresses existing infrastructure and utility systems in the City of Morgan Hill that serve the project site, discusses the proposed project relative to the *City of Morgan Hill General Plan,* and evaluates the potential impacts to these services and systems. Potential impacts focus on increased potable water demand, expansion of wastewater collection and treatment, and increased generation of solid waste associated with the proposed project. **Section 3.8, Surface Water Hydrology and Water Quality**, includes a discussion of storm water infrastructure impacts. This analysis is based on the *City of Morgan Hill General Plan, Morgan Hill Planning and Zoning Codes*, *City of Morgan Hill Water System Master Plan, City of Morgan Hill Sewer Master Plan*, and previous environmental documents, including the *Morgan Hill General Plan EIR*.

3.13.1 ENVIRONMENTAL SETTING

The City of Morgan Hill provides a range of public services to the community including potable water and wastewater disposal. Other municipal services such as electricity & natural gas, solid waste, cable television and telecommunications are provided by entities such as Pacific Gas & Electric (PG&E), South Valley Disposal, Charter Communications, SBC Communications and Verizon Communications, respectively.

SOLID WASTE

The City of Morgan Hill receives solid waste management and recycling services from South Valley Disposal and Recycling. Collected waste from the City of Morgan Hill is currently sent to the San Martin Transfer Station where recyclables are diverted to various processing facilities and the remainder sent to Pacheco Pass Landfill for internment. The Pacheco Pass Landfill opened in the early 1960s and serves approximately 75,000 people in the cities of Morgan Hill and Gilroy and the South Santa Clara County area. According to the figures published by the California Integrated Waste Management Board, in the year 2000 the landfill received approximately 90,379 tons of solid waste, with 29,003 tons of that originating in the City of Morgan Hill. According to Waste Management staff, the landfill has approximately 3.2 million cubic yards of remaining capacity, with a daily limit of 1,000 tons per day of municipal solid waste and inert materials. Once maximum capacity has been reached at Pacheco Pass Landfill, the waste stream will be diverted to either the Kirby Creek Landfill in south San José or the BFI landfill in the City of Milpitas.

WATER

There are four water wells on the project site. These include two domestic water wells located on the Millerd-Low and Guglielmo properties, one operational irrigation well on the Millerd-Low property, and one abandoned irrigation well located on or near the property line between the Millerd-Low and Guglielmo properties.

These wells are drawing water from the same groundwater sources as the municipal water system. The City of Morgan Hill provides potable water services to residential, commercial, industrial, and institutional customers within the city limits. According to the *City of Morgan Hill Water Master Plan* and City of Morgan Hill staff, the municipal water system extracts water from underground aquifers via a series of 14 groundwater wells (12 active and 2 reserve) and is distributed to a series of pressure zones via a series of pipes, pump stations and reservoirs. In 2004 the average annual water demand was approximately 7.2 mgd, with a peak day demand of 11.3 mgd. Current municipal capacity is approximately 12.5 million gallons a day (mgd), which will increase to 13.1 mgd by June 1, 2005. Including reserve capacity, the system can supply 13.9 mgd (increasing to 14.5 mgd by June 1, 2005).

The City of Morgan Hill straddles two of the three groundwater subbasins of the Santa Clara Valley, with Cochrane Road (adjacent to the southern boundary of the project site) located on the approximate boundary between the Coyote and Llagas Subbasins. The Coyote Subbasin extends from Cochrane Road north to Metcalf Road. Approximately 7 miles long and two miles wide, the subbasin is generally unconfined and drains north into the Santa Clara Valley subbasin. The Llagas Subbasin extends from Cochrane Road south to the County border. It is connected to the Bolsa Subbasin of the Hollister Basin and bounded on the South by the Pajaro River (the Santa Clara – San Benito County line). The Llagas Subbasin is approximately 15 miles long, 3 miles wide along its northern boundary and 6 miles wide along the Pajaro River. These subbasins serve multiple functions, including the filtering, transmission and storage of water. In the year 2000, the groundwater basin supplied 165,000 of the 390,000 acre-feet used in Santa Clara County.

The *City of Morgan Hill Water System Master Plan* did not include a detailed evaluation of groundwater conditions in relation to projected demand. However, according to the *Water Master Plan*, sufficient groundwater capacity is available to meet future water requirements through the planning horizon of 2020. The Santa Clara Valley Water District *Groundwater Management Plan* (SCVWD 2001) found groundwater conditions throughout Santa Clara County to be "generally very good," as based on results of its groundwater monitoring programs, with groundwater elevations generally recovered from overdraft conditions experienced in the middle of the last century.

One recent issue of note was the discovery and ongoing treatment of perchlorate contamination in the Llagas Subbasin and several of Morgan Hill's municipal water wells. The contamination was first detected in August 2000 and traced to a now demolished highway flare factory on the Olin property at 425 Tennant Avenue in Morgan Hill, approximately three miles south of the project site. Regional water quality samples taken between November 1999 and February 2005 show the contaminant plume generally moving in a southeastern orientation through San Martin and unincorporated County lands east of Gilroy. Contamination of Morgan Hill's municipal wells was first detected in March

2002, with the City responding through a combination of well closure, replacement and treatment. Test results as of April 18, 2005 show all active City wells at a "non-detect" reading for perchlorate. Ongoing decontamination of the Olin Property and monitoring of the contaminant plume in groundwater is being coordinated by the Olin Corporation, Santa Clara Valley Water District, and Central Coast Regional Water Quality Board.

WASTEWATER

While current land uses on the project site rely upon septic systems for wastewater disposal, the city provides wastewater collection service to almost all parts of the City of Morgan Hill, and would provide service to the proposed project. The project site lies at the convergence of the Eagle View and Cochrane subtrunks that direct wastewater from the northeastern quadrant of the city toward the main north-south sewer trunks. Wastewater generally flows from north to south and is directed into a single main trunk sewer that runs through San Martin for treatment in the City of Gilroy. The joint Gilroy/Morgan Hill Wastewater Treatment Facility, officially known as the South County Regional Wastewater Treatment Plant (WWTP), provides secondary treatment and partial tertiary treatment for wastewater produced by Morgan Hill and Gilroy. The WWTP is operated by the South County Regional Wastewater Authority (SCRWA), a joint powers authority overseen by the cities of Morgan Hill and Gilroy.

The WWTP currently has a dry weather capacity of 7.5 million gallons per day (mgd), with Morgan Hill holding a dedicated share equal to 42 percent of the plant's capacity, or 3.15 mgd average dry weather flow (ADWF) under current capacity. There are plans to expand the total capacity of the Wastewater Treatment Facility to 12.75 mgd, and with it Morgan Hill's share of this capacity to 5.36 mgd. Design work for the new facility will begin in fiscal year 2008/2009 and should be completed by 2011/12. Most of the treated effluent is discharged into percolation ponds where it seeps into the upper groundwater table at the south end of the Santa Clara Valley. The planning, development and finance of improvements to the wastewater system are regulated by the *City of Morgan Hill Sewer System Master Plan*.

GAS, ELECTRIC, AND TELECOMMUNICATIONS

The project site and surrounding properties contain natural gas and electricity infrastructure owned and operated by Pacific Gas & Electric (PG&E) Company. Electricity is presently found on-site in the form of pole-mounted transmission lines and transformers bisecting the property in a roughly north-south orientation. Natural gas is not currently provided, with existing residences served by individual propane tanks.

The majority of telecommunications customers in the City of Morgan Hill receive service from SBC Communications, with a smaller number contracting with Verizon Communications. Cable television services are provided by Charter Communications.

3.13.2 REGULATORY SETTING

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000.

The Act further required every city and county to prepare two documents to demonstrate how the mandated rates of diversion would be achieved. The first document is the Source Reduction and Recycling (SRR) Element describing the chief source of the jurisdiction's waste, the existing diversion programs, and the current rates of waste diversion and new or expanded diversion programs intended to implement the Act's mandate. The second document is the Household Hazardous Waste (HHW) Element, which described what each jurisdiction must do to ensure that household hazardous wastes are not mixed with regular non-hazardous solid waste and deposited at a landfill.

CITY OF MORGAN HILL CODES AND ORDINANCES

Provision of Public Services and construction and maintenance of infrastructure and utilities in the City of Morgan Hill is generally enabled and regulated by the *City of Morgan Hill Municipal Code*, *City of Morgan Hill General Plan*, City of *Morgan Hill Sewer System Master Plan* and *City of Morgan Hill Water System Master Plan*.

CITY OF MORGAN HILL GENERAL PLAN

The following Goals and Policies of the *City of Morgan Hill General Plan* are relevant to the proposed project.

Community Development

Goal 2 An orderly and efficient pattern of development.

Policy 2b Ensure that facility/service standards can be met for new development by the time of occupancy.

Goal 16 An urban level of services and facilities.

Policy 16c Identify public facility and service needs, and coordinate their development to minimize costs and support achievement of community goals.

Action 16.1 Require all development that may result in a substantial impact on City infrastructure and/or services to be analyzed to determine the extent of that fiscal burden.

Action 16.4 Fully utilize existing strategies to achieve an urban level of public services throughout the city, including a) require that the timing and location of future urban development be based upon the availability of public services and facilities; b) require new development to pay all the incremental public service costs which it generates; and c) require developers to dedicate land and/or pay to offset the costs relating to the provision and expansion of public services and facilities.

3.13.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and standards used by the City of Morgan Hill. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs;
- A substantial increase in demand for an adequate water supply over the existing condition;
- An inability to provide an adequate water supply, including facilities for treatment, storage and distribution;
- Require substantial expansion or alteration of the City's wastewater treatment or collection facilities; or
- Result in a substantial increase in wastewater flows over current conditions and capacities.

3.13 UTILITIES

METHODOLOGY

The evaluation of potential land use impacts are based on several documents including the *City of Morgan Hill General Plan* and *City of Morgan Hill General Plan EIR*, the *City of Morgan Hill Water System Master Plan*, the *City of Morgan Hill Sewer System Master Plan* and both written and oral discussions with staff of the Morgan Hill Public Works Department.

PROJECT IMPACTS AND MITIGATION MEASURES

Solid Waste

Impact 3.13-1 The proposed project would generate between 0.8 and 8.3 tons of solid waste per day. The waste management provider responsible for the project has sufficient capacity to accommodate the waste within the Pacheco Pass Landfill in Morgan Hill, Kirby Creek Landfill in Milpitas, or BFI landfill in San Jose. Without sufficient waste diversion practices, however, the project may result in noncompliance with the California Integrated Waste Management Act of 1989. As such, the impacts to solid waste services can be considered **potentially significant**.

Precise estimates regarding solid waste generation are difficult to establish. Neither the City of Morgan Hill nor South Valley Waste and Disposal utilize adopted solid waste generation rates for purposes of evaluating impacts to city services. Additionally, a precise tenant mix has not yet been determined and as such, precise generation rates for individual uses is not available. To estimate the generation of solid waste associated with the proposed project, solid waste generation was calculated using Ultrasystems solid waste generation rates for the *Stevenson Ranch Draft EIR* (1992), and *Guide to Solid Waste and Recycling Plans for Development Projects* (Santa Barbara County Public Works Department), as listed on the California Integrated Waste Management Board website. The first assumes a Commercial Retail land use will generate approximately 2.5 pounds of solid waste per 1,000 square feet of commercial uses per day, while the latter assumes 2.5 pounds of solid waste per 100 square feet of commercial uses per day. Assuming build out of the proposed project, we can assume a range of approximately 0.8 to 8.3 tons per day, or approximately 292 to 2,029 tons per year. These figures represent an increase of between 1 and 10 percent over existing solid waste levels generated by the City.

While the proposed project would increase waste generation rates for the City of Morgan Hill, the waste management provider has sufficient capacity to accommodate the waste disposal needs of the proposed project within the Pacheco Pass Landfill currently serving the City, or other landfills such as the Kirby Creek or BFI landfills under long term contracts with the provider. However, to ensure compliance with state mandated source reduction and recycling goals, all waste disposal areas should contain recycling receptacles for the

diversion of corrugated cardboard, mixed paper, food and beverage containers, and other recyclable products.

Mitigation Measure

MM 3.13-1 Subject to review and approval by the City of Morgan Hill, the project applicant shall locate and maintain recycling receptacles for corrugated cardboard, mixed paper, food and beverage containers, and landscaping waste. Such receptacles shall be located adjacent to the garbage dumpsters serving the businesses or maintenance personnel generating such waste. Contracts for the collection of these recyclables shall also be maintained as available.

Implementation of this mitigation measure would reduce long-term impacts to waste diversion goals to a **less than significant level** by ensuring compliance with state mandated source reduction and recycling goals.

Electric, Natural Gas, Telephone and Cable Services

Impact 3.13-2 The proposed project would increase the demand for electric, natural gas, telephone and cable services. This impact to new or existing services is considered **a less than significant impact**.

The project applicant will be required to install municipal utility improvements and infrastructure to the entire project site for the provision of electricity, telephone, and possibly natural gas and cable services. Project plans submitted with the application demonstrate the locations of existing and proposed public utility easements. As a practice, PG&E reviews development applications to identify the necessary utility easements for the provision of service. If existing infrastructure proves unable to service future uses on the project without relocation and/or upgrading of PG&E's electric transmission and substation facilities, the developer will be responsible for any associated costs. Similar upgrades may also be necessary for telecommunications service and other utilities. To ensure the provision of adequate services for the proposed project, the applicant would be required to present a "will-serve" letter from PG&E and SBC Communications, or equivalent providers, prior to Final Map approval and/or issuance of building permits. This is considered a **less than significant** impact because services are readily available to the site and any new construction to provide new or improved connections will be incidental to the overall construction program.

Potable Water

Impact 3.13-3 The proposed project will increase the demand for potable water. However, the existing water system can adequately supply the project

and the increase would not be substantial in relation to the existing condition. As such, the impact to water services can be considered **less than significant**.

The proposed project would result in an increased demand for potable water to service the businesses and landscaping in the proposed shopping center. In 2004, the average annual water demand for the City of Morgan Hill was approximately 7.2 mgd, with a peak day demand of 11.3 mgd. Current municipal capacity is approximately 12.5 million gallons a day (mgd) and will be increasing to 13.1 mgd by June 1, 2005 when an additional well goes online. When reserve capacity from two backup wells is included, the system can supply 13.9 mgd. This will increase to 14.5 mgd by June 1, 2005.

TABLE 3.13-1
ESTIMATED WATER DEMAND

	Firm Capacity (Total excluding reserve)	Total Capacity including Reserve
Current Daily Capacity	13.1 mgd	14.5 mgd
	Average Daily Demand	**Peak Day Demand**
Current Demand	7.2 mgd	11.3 mgd
Current Demand + Project	7.37 mgd	11.64 mgd

Source: City of Morgan Hill Water Master Plan, 2002

The *City of Morgan Hill Water System Master Plan* assumed land uses on this property would use, at buildout, approximately 1.8 gallons per minute per net acre (gpm/na), or 119 gpm (192 acre-feet per year) for the 66.49 acres. This equates to an average daily demand of approximately 0.17 mgd and a peak day demand of 0.34 mgd (0.52 and 1.04 acre-feet respectively), which are increases equivalent to 2.3 and 3 percent of existing average and peak daily demands. As demonstrated in **Table 3.13-1**, the existing water system has sufficient capacity to provide water to the development on both average and peak water usage days.

The proposed project includes water service infrastructure improvements. The four on-site wells currently servicing the property will be capped and replaced with 12-inch water lines extending westward from existing 10 and 12-inch water lines located beneath Cochrane Road. Additionally, fire hydrants will be provided in locations to be approved by the fire department. All work will be done by the applicant to city standards and in conformance with the *City of Morgan Hill Water System Master Plan*. In accordance with Chapter 3.44 and 3.56 of City of Morgan Hill Municipal Code, water Impact fees will also be assessed for the cost of infrastructure necessary to service the proposed project.

Construction of the proposed project would result in a significant increase in impervious surface and loss of groundwater recharge on-site. This loss is less than significant at the

municipal and regional level due to the aggressive groundwater recharge programs of the Santa Clara Valley Water District (SCVWD). The SCVWD operates and maintains 18 major recharge systems, with both reservoir and imported water released in over 30 local creeks for artificial in-stream recharge. Additionally, the SCVWD releases locally conserved and imported water to 71 off-stream facilities (percolation ponds) which range in size from less than 1 acre to more than 20 acres). Through these, the SCVWD recharges the groundwater basin with about 157,000 acre-feet of water annually. Therefore, impacts to water supply can be considered **less than significant**. No mitigation is required.

Wastewater

Impact 3.13-4 The proposed project would require on-site expansion and relocation of existing infrastructure, in addition to an increase in the amount of wastewater entering the sewer system. Neither the expansion nor the increased flow, are substantial relative to current conditions and capacities. As such, the impact to wastewater services will be **less than significant**.

The proposed project will require new wastewater infrastructure in and around the project site. Such improvements include the extension and addition of on-site sewer lines, the relocation of the existing Eagle View sub-trunk that would be located within the footprint of proposed structures, and payment by the applicant of their fair share of improvements necessary to extend service to their site. Project plans indicate that on site sanitary sewer improvements will tie into existing sewer lines at the northern and southwestern edges, permitting passage of existing flow from the Eagle View sub-trunk, in addition to project generated sewage, through the project site and into the existing Cochrane sub-trunk manhole adjacent to the northbound on-ramp for Highway 101. All work will be done by the applicant to city standards and in conformance with the *City of Morgan Hill Sewer System Master Plan*.

The proposed project would also increase the amount of wastewater entering the municipal wastewater system. In 2004, the average dry weather flow (ADWF) to the Wastewater Treatment Facility was approximately 6.259 mgd, with Morgan Hill contributing approximately 2.6 mgd of the total. With a current allocation of 3.15 mgd for Morgan Hill, the city has approximately 550,000 gallons per day (gpd) of remaining capacity. The *City of Morgan Hill Sewer System Master Plan* estimated wastewater generation rates for Commercial and Industrial land uses at 1,500 gallons per day per net acre (gpd/na). The proposed project can be expected to produce an average dry weather flow of 99,360 gpd, an amount equal to 18 percent of remaining capacity and 3.8 percent of existing flow. As such, implementation of the proposed project would neither require substantial alteration or expansion of existing wastewater infrastructure, nor result in a substantial increase in flows over existing conditions. Additionally, in accordance with Chapter 3.44 and 3.56 of Morgan Hill Municipal Code, sewer impact fees will also be

assessed to cover the cost of infrastructure necessary to service the proposed project. Given these conditions the project would result in **less than significant impacts** to wastewater services. No mitigation is required.

Cumulative Impacts and Mitigation Measures

Cumulative Impacts to Utilities

Impact 3.13-5 The proposed project, in addition to reasonably foreseeable projects in the vicinity, would likely result in the need for new or upgraded infrastructure for the delivery of water, sewer, telecommunications, electricity, and natural gas to the project area. This is considered a **less than cumulative significant impact**.

Ultimate development of the project site would contribute to cumulative impacts to the city's utility infrastructure when combined with other growth and development. However, the City of Morgan Hill Public Works Department as a practice requires this and other projects to provide infrastructure improvements consistent with the City Water and Sewer System Master Plans whose goal is the provision of adequate levels of potable water and sewage disposal within the Urban Service Area. Such plans exist to prevent significant impacts to water and sewer services that may result from uncoordinated development and increased demands for service. Additionally, the proposed project will be required to pay water and sewer impact fees to cover its share of the cumulative impact upon municipal systems. Cumulative impacts to telecommunications, natural gas and electricity can be expected to be less than significant as this applicant and other significant projects are required to provide "will-serve" letters prior to final map recordation and/or issuance of building permits. Therefore, cumulative impacts to utilities would be considered **less than cumulative significant**.

REFERENCES/DOCUMENTATION

Ashcraft, Jim and Jimenez, Mario. City of Morgan Hill Public Works Department. Correspondence. March 3, 2005.

California Integrated Waste Management. Website: http://ciwmb.ca.gov

Morgan Hill, City of. *City of Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *City of Morgan Hill General Plan Draft Master Environmental Impact Report*. March 22, 2001.

Morgan Hill, City of. *Water System Master Plan*. January 2002.

Morgan Hill, City of. *Sewer System Master Plan*. January 2002.

Morgan Hill, City of. Website: http://www.morgan-hill.ca.gov

Morgan Hill, City of. Memorandum from the City of Morgan Hill Public Works to the City of Morgan Hill Planning Division. October 11, 2004.

Santa Clara Valley Water District. *Groundwater Management Plan*. July 2001.

Santa Clara Valley Water District. Website: http://www.valleywater.org

Sherman, Paul. Planner, Norcal Waste Systems. Correspondence. March 28, 2005.

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